

Applicants respectfully submit that Shoji '051 fails to describe, teach or suggest silver at X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1.

Shoji '051 discloses a solder containing 8.8 to 5.0 mass % of Zn, 0.05 to 0 mass % of Bi and the balance of Sn and unavoidable impurities. *See*, paragraph [0013]. Shoji '051 discloses as follows:

[g]enerally, the amount of each of unavoidable impurities mingled into solder metal is 1 mass % or less. Examples of the unavoidable impurities include non-metallic elements, semi-metallic elements, carbon, oxygen, nitrogen, and transition metals. Of these, unavoidable elements, such as Pb, Ag, Cu, Fe, Al, As, Cd, etc., are readily migrated to solder metal.

*See* paragraph [0034]. Shoji '051 fails to specify that Ag is the unavoidable element present therein and is present in an amount of X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1. As a result, Shoji '051 fails to motivate a person of ordinary skill in the art to select Ag and select an amount of Ag that is X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1.

In order to establish a *prima facie* case of obviousness, Shoji '051 must suggest the desirability of Ag in an amount of X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1. *See*, 2143.01 (I). The mere fact that a person of ordinary skill in the art can modify the solder disclosed in Shoji '051 is not sufficient to establish a *prima facie* case of obviousness. *See*, MPEP § 2143.01 (III).

In the present case, Shoji '051 uses the term "impurities" to refer to the unavoidable elements, such as Pb, Ag, Cu, Fe, Al, As, Cd, etc. Given that Shoji '051 refers to the unavoidable elements as "impurities," a person of ordinary skill in the art would immediately

recognize that Shoji '051 did not analyze the solder thereof for Ag or measure the amount of Ag therein, if any was present. It is not sufficient that a person of ordinary skill in the art could have searched for Ag or could have measured the amount therein. As Shoji '051 fails to teach measuring for Ag or the amount thereof, Shoji '051 fails to provide the desirability of having Ag present therein in an amount of X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1. A person of ordinary skill in the art would not have been motivated to select Ag from the group of unavoidable impurities and select an amount of Ag that is X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1.

Further, the solder disclosed in Shoji '051 cannot provide for Ag in an amount of X weight %, wherein X is equal to or greater than 0.001, but smaller than 0.1. The solder disclosed in Shoji '051 is produced by mixing together purified forms of Zn, Bi and Sn. In order to produce a solder in which Ag is present in an amount of X weight %, a person of ordinary skill in the art would need to add Ag in an amount of more than 0.001 weight %, when mixing together Zn, Bi, and Sn. Shoji '051 does not describe or suggest intentionally adding Ag, as Shoji '051 discloses that Ag may be one of the unavoidable impurities therein. In this regard, Shoji '051 fails to teach or suggest Ag in an amount of X weight %, wherein X is equal to or greater than 0.001 but smaller than 0.1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.116  
Appln. No.: 10/516,708

Docket No: Q85154

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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Date: January 18, 2007